

Remarks

Claims 1, 7, 15-27 and 22 have been amended. Claims 18-20 and 23 have been canceled. Therefore, claims 1-17, 21 and 22 are now presented for examination.

In a Final Office Action mailed March 30, 2004, claims 1, 2, 4-11, 13-17, 21 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kobayahsi (UK Patent Application 234920) in view of Sulavuori et al. (U.S. Patent No. 5,636,264). Further, claims 3, 12, 18-20 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kobayahsi in view of Sulavuori as applied to claims 1, 7, 15, 16, 17 and 22 above, and further in view of well known in the art. Applicant submits that the present claims are patentable over Kobayahsi in view of Sulavuori.

Kobayashi discloses an option apparatus for a portable terminal unit. The option apparatus of Kobayashi comprises a radio transceiver, an infrared transceiver, and a connector, and the portable terminal unit of Kobayashi comprises a radio transceiver, infrared transceiver, and a connector. In the option apparatus of Kobayashi, a radio transceiver converts electrical signals supplied from the control circuit into RF signals (Kobayashi, p. 13, lines 1-2), and a light emitting unit converts electric signals received from the infrared transmitter/receiver into infrared radiation (Kobayashi, p. 14, lines 12-18). Nevertheless, Kobayashi does not disclose or suggest an adapter that includes a Bluetooth transceiver to transmit and receive information to and from a data system via a Bluetooth interface.

Sulavuori discloses a computer or telecopier coupled to a radio telephone via an infrared connection. In one embodiment, Sulavuori discloses using the computer/telecopier as an external device with the infrared connection between the radio unit, wherein the computer/telecopier would be between the radio phone and a PCMCIA data card. The PCMCIA data card communicates with the radio phone through the infrared connection. Data from a computer/telecopier is converted in correct form for the radio telephone in the PCMCIA data card, which is transmitted by the radio telephone

without any conversion when the radio telephone system is digital. See Sulavuori at col. 8, ll. 47-67.

In another embodiment, Sulavuori discloses the computer/telecopier connected to the radio telephone by the infrared connection, wherein the radio telephone has a built-in-modem. Data received by the radio telephone as a RF signal is converted by the modem to transportable form and the data is converted into asynchronous serial format (e.g., in a UART unit within the telephone. The data is forwarded to an infrared transmitter transmitting the data to the PCMCIA unit within the computer in asynchronous serial form. When the computer sends data through the radio telephone the previous steps are performed in reverse order (col. 9, ll. 1-16).

In yet another embodiment, the system is disclosed implementing an analog radio communication system. In such an embodiment, the necessary signals are transmitted from the radio telephone as infrared pulses to the PCMCIA data card, which converts these signals to appropriate form for the computer. When the computer sends data through the radio telephone, the data is converted to MIC, EAR and data bus signals in the PCMCIA data card and transmitted to the radio telephone via the infrared link. The necessary conversions are made in the radio telephone, as discussed above, before sending the data through the radio frequency connection (col. 9, ll. 17-28).

Nonetheless, applicant submits that Sulavuori does not disclose or suggest an adapter that includes a Bluetooth transceiver to transmit and receive information to and from a data system via a Bluetooth interface.

Claim 1 of the present application recites a Bluetooth transceiver to transmit and receive information to and from a data system via a Bluetooth interface. Applicant submits that nowhere in Kobayashi or Sulavuori is there disclosed or suggested a transceiver that transmits and receives information to and from a data system via a Bluetooth interface. Since neither Kobayashi nor Sulavuori disclose or suggest such a feature, any combination of Kobayashi and Sulavuori would also not disclose or suggest

a transceiver that transmits and receives information to and from a data system via a Bluetooth interface. Therefore, claim 1 is patentable over Kobayashi in view of Sulavuori.

Claims 2-6 depend from claim 1 and include additional limitations. Therefore, claims 2-6 are also patentable over Kobayashi in view of Sulavuori.

Claim 7 recites a Bluetooth transceiver to transmit and receive information to and from the data system. Thus, for the reasons described above with reference to claim 1, claim 7 is also patentable over Kobayashi in view of Sulavuori. Further, claim 7 recites an adapter to transfer information between a computing device and a data system. Applicant submits that neither Kobayashi nor Sulavuori disclose or suggest an adapter that transfers information between a computing device and a data system. Instead, Kobayashi discloses a portable terminal unit that communicates with a base station, while Sulavuori discloses a radio telephone system. As a result, claim 7 is also patentable over Kobayashi in view of Sulavuori since neither disclose nor suggest an adapter to transfer information between a computing device and a data system.

Since claims 8-14 depend from claim 7 and include additional limitations, claims 8-14 are also patentable over Kobayashi in view of Sulavuori.

Claim 15 recites a Bluetooth transceiver to transmit and receive information to and from a data system via a Bluetooth interface. Accordingly, for the reasons described above with reference to claim 1, claim 15 is also patentable over Kobayashi in view of Sulavuori. In addition, claim 15 recites a first infrared transceiver to transmit and receive information to and from a first computing device via a first infrared data port, and a second infrared transceiver to transmit and receive information to and from a second computing device via a second infrared data port.

Applicant submits that neither Kobayashi nor Sulavuori disclose or suggest an adapter that includes multiple IR transceivers. Moreover, the IR transmitters and receivers disclosed in Kobayashi and Sulavuori do not transmit to multiple devices.

Consequently, claim 15 is also patentable over Kobayashi in view of Sulavuori since neither disclose nor suggest an adapter to transfer information between a computing device and a data system.

Because claims 20 and 21 depend from claim 15 and include additional limitations, claims 20 and 21 are also patentable over Kobayashi in view of Sulavuori.

Claim 16 recites converting the information from an infrared format to Bluetooth protocol format at a processor and communicating the information to the network over a Bluetooth link. Therefore, for the reasons described above with reference to claim 1, claim 16 is also patentable over Kobayashi in view of Sulavuori.

Claim 17 recites receiving information at an adapter over a Bluetooth communication link from the network and converting the information from a Bluetooth protocol format to an infrared signal at a processor. Therefore, for the reasons described above with reference to claim 1, claim 16 is also patentable over Kobayashi in view of Sulavuori.

Claim 22 recites an IR (infrared) to Bluetooth adapter communicatively coupled to an infrared data port, the adapter having a Bluetooth transceiver to transmit and receive information to and from a data system. In addition, claim 22 recites. Therefore, for the reasons described above with reference to claims 1 and 7, claim 22 is also patentable over Kobayashi in view of Sulavuori.

Claims 1-23 stand rejected under 35 U.S.C. §102(b) as being anticipated by Harrington (U.S. Patent No. 4,864,647). Applicant submits that the present claims are patentable over Harrington.

Harrington discloses a remote control apparatus for activating a device, which is capable of being controlled by an infrared radiation signal. The apparatus includes means for transmitting a radio signal and means for receiving the radio signal and producing the infrared signal corresponding to the radio signal received. The transmitting means includes an infrared radiation transmitter for transmitting a second infrared signal, and

means for receiving the second infrared radiation signal and producing a radio signal corresponding to the second infrared radiation signal received by it. See Harrington at col. 2, ll. 26-42. The means for receiving the second infrared radiation signal and producing a radio signal includes a detector, and amplifier and radio frequency components for converting infrared radiation patterns into an FM radio signal form (col. 3, ll. 10-19).

As discussed above, the present claims recite a Bluetooth transceiver to transmit and receive information to and from a data system via a Bluetooth interface. Applicant submits that there is absolutely no disclosure in Harrington of the implementation of a Bluetooth interface. In addition, there is no disclosure in Harrington of an adapter to transfer information between a computing device and a data system as recited in various claims. Further, Harrington does not disclose a first infrared transceiver to transmit and receive information to and from a first computing device via a first infrared data port, and a second infrared transceiver to transmit and receive information to and from a second computing device via a second infrared data port, as recited in the claims. Accordingly, the present claims are patentable over Harrington.

Claims 1-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cho (U.S. Patent No. 5,995,593). Applicant submits that the present claims are patentable over Cho.

Cho discloses a system for wire/wireless communication of information using a telephone network. The system includes a data transmitting unit positioned at a first location, a first transceiver coupled to the data transmitting unit for transforming the information into a first infrared signal, a first telephone positioned at the first location, a second transceiver coupled to the first telephone for receiving the first infrared signal from the first transceiver and transforming the first infrared signal into an electrical signal to be supplied to the telephone network. See Cho at col. 2, ll. 13-40. Further, Cho discloses that the first and a third transceiver includes an infrared baseband modem for

transforming information into an analog form necessary for telephone line transmission, a transmitter means for transforming an analog signal from the first infrared baseband modem into an infrared signal and a first infrared antenna for transmitting the infrared signal as infrared radiation. A second and fourth transceivers include a second infrared antenna for transforming the infrared radiation into the infrared signal, a receiver means for receiving and converting the infrared signal into the analog signal, and a second infrared baseband modem for receiving and converting the analog signal into the analog form necessary for telephone line transmission (col. 2, ll. 36-50).

Applicant submits that nowhere in Cho is there disclosed a Bluetooth transceiver to transmit and receive information to and from a data system via a Bluetooth interface, an adapter to transfer information between a computing device and a data system as recited in various claims, or a first infrared transceiver to transmit and receive information to and from a first computing device via a first infrared data port, and a second infrared transceiver to transmit and receive information to and from a second computing device via a second infrared data port, as recited in the claims. Therefore, the present claims are patentable over Cho.

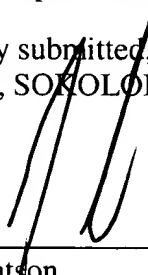
Applicant respectfully submits that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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